

SOFT-START OF DC LINK CAPACITORS FOR POWER
ELECTRONICS AND DRIVE SYSTEMS

ABSTRACT

A soft-start system and method for use in the soft-start of DC links for capacitor banks are disclosed. The soft-start system (200) includes a capacitor (230) connected to a first bus (282) of a DC link (280). A
5 resistor (210) is connected a second bus (284) of the DC link (280). The resistor (210) and capacitor (230) are connected in series. A switching device (220) is connected in parallel with the resistor (210). A triggering circuit (240) measures a DC voltage on the DC link (280) and activates the switching device (220) to short circuit the resistor (210). The method
10 includes charging the capacitor (230) of the DC link (280), measuring the charge on the capacitor (280) and activating the switching device (220) thereby short circuiting the resistor (210) when the charge on the capacitor reaches a predetermined value.